

CLAIMS

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1. A method for detecting a pathogenic microorganism which comprises infecting an animal or a biosample with the pathogenic  
5 microorganism, administering an antimicrobial agent comprising a compound having an antimicrobial effect or a composition thereof before or after the infection, then removing the antimicrobial agent, and thereafter detecting the viable pathogenic microorganism in the infected site with the pathogenic microorganism.

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2. The method for detecting a pathogenic microorganism of Claim 1, in which the pathogenic microorganism is a bacterium or a fungus.

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3. The method for detecting a pathogenic microorganism of Claim 2, in which the fungus is a pathogenic fungus causing superficial mycosis or deep mycosis.

20 4. The method for detecting a pathogenic microorganism of Claim 1, in which the antimicrobial agent is a therapeutic agent for superficial mycosis, a therapeutic agent for deep mycosis and an antibacterial agent.

25 5. The method for detecting a pathogenic microorganism of Claim 1, which comprises removing the antimicrobial agent using dialysis or ultra filtration.

6. The method for detecting a pathogenic microorganism of Claim 1, in which the infected site with the pathogenic microorganism is a skin or a nail.

5           7. The method for detecting a pathogenic microorganism of Claim 1, in which the administration of the antimicrobial agent is carried out percutaneously, orally or intravenously.

10           8. The method for detecting a pathogenic microorganism of Claim 1, which comprises treating the infected site with the pathogenic microorganism with a digestive enzyme to detect the pathogenic microorganism.

15           9. A method for evaluating an effect of an antimicrobial agent which comprises detecting a pathogenic microorganism according to the method for detecting the pathogenic microorganism of Claim 1, 2, 3, 4, 5, 6, 7 or 8.

20           10. An antimicrobial agent obtained according to the method for evaluating an effect of an antimicrobial agent of Claim 9.

11. A method for detecting an antimicrobial agent which comprises infecting an animal or a biosample with a pathogenic microorganism, administering an antimicrobial agent comprising a compound having an antimicrobial effect or a composition thereof before  
25           or after the infection, then excising the infected site with the pathogenic microorganism, placing and cultivating it on a medium containing the

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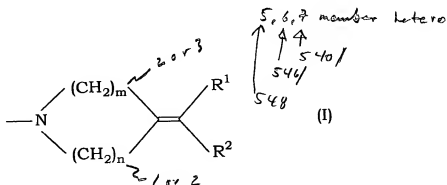
pathogenic microorganism, and thereafter detecting a existing the antimicrobial agent in the infected site with the pathogenic microorganism through a growth inhibition of the pathogenic microorganism observed around the infected site with the pathogenic microorganism.

5 microorganism.

12. A therapeutic agent for onychomycosis comprising an antifungal agent compound having a group represented by the formula

(I):

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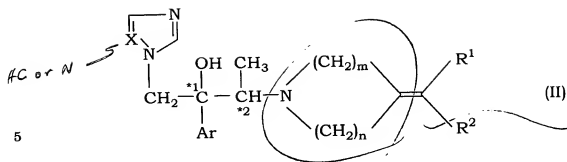
(I)

15 wherein, R<sup>1</sup> and R<sup>2</sup> are the same or different and are hydrogen atom, C<sub>1-6</sub> alkyl group, a non-substituted aryl group, an aryl group substituted with 1 to 3 substituents selected from a halogen atom, trifluoromethyl group, nitro group and C<sub>1-6</sub> alkyl group, C<sub>2-8</sub> alkenyl group, C<sub>2-6</sub> alkynyl group, or C<sub>7-12</sub> aralkyl group,  
 20 m is 2 or 3,  
 n is 1 or 2,  
 or a salt thereof as an active ingredient.

13. The therapeutic agent for onychomycosis of Claim 12, in

25 which the compound is the compound represented by formula (II):

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wherein, Ar is a non-substituted phenyl group or a phenyl group substituted with 1 to 3 substituents selected from a halogen atom and trifluoromethyl group,

10 R<sup>1</sup> and R<sup>2</sup> are the same or different and are hydrogen atom, C<sub>1-6</sub> alkyl group, a non-substituted aryl group, an aryl group substituted with 1 to 3 substituents selected from a halogen atom, trifluoromethyl group, nitro group and C<sub>1-6</sub> alkyl group, C<sub>2-8</sub> alkenyl group, C<sub>2-6</sub> alkynyl group, or C<sub>7-12</sub> aralkyl group,

15 m is 2 or 3,

n is 1 or 2,

X is nitrogen atom or CH, and

\*1 and \*2 mean an asymmetric carbon atom.

20 14. The therapeutic agent for onychomycosis of Claim 13, in which the compound represented by the formula (II) is (2R,3R)-2-(2,4-difluorophenyl)-3-(4-methylen piperidine-1-yl)-1-(1H-1,2,4-triazole-1-yl) butane-2-ol.

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15. A method for evaluating an effect of an antifungal agent which comprises administering the antifungal agent to a patient whose a skin or a nail is infected with fungus, thereafter excising the keratin

substance or the nail, and then detecting the viable fungus in the keratin substance or the nail after removing the antifungal agent.

- 5      16. A method for detecting an antifungal agent which comprises administering the antifungal agent to a patient whose a skin or nail is infected with fungus, thereafter excising the keratin substance or the nail, placing and cultivating it on a medium containing the fungus, and then detecting a existing antifungal agent in the keratin substance or the nail through a growth inhibition of the fungus observed around
- 10    the keratin substance or the nail.

17. An antifungal agent obtained according to the method for evaluating an effect of the antifungal agent of Claim 15.

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